



Renew America's Schools | Efficient and Healthy Schools Program | Better Buildings Initiative

The Power of Partnerships



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Introductions



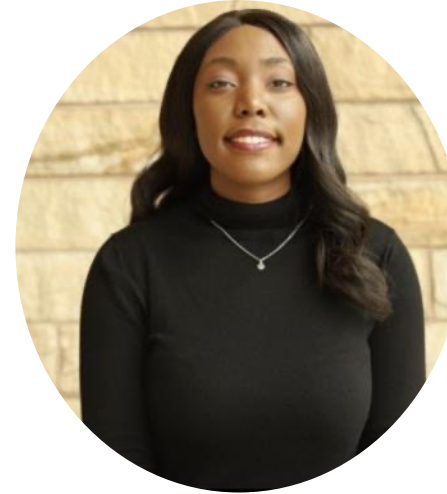
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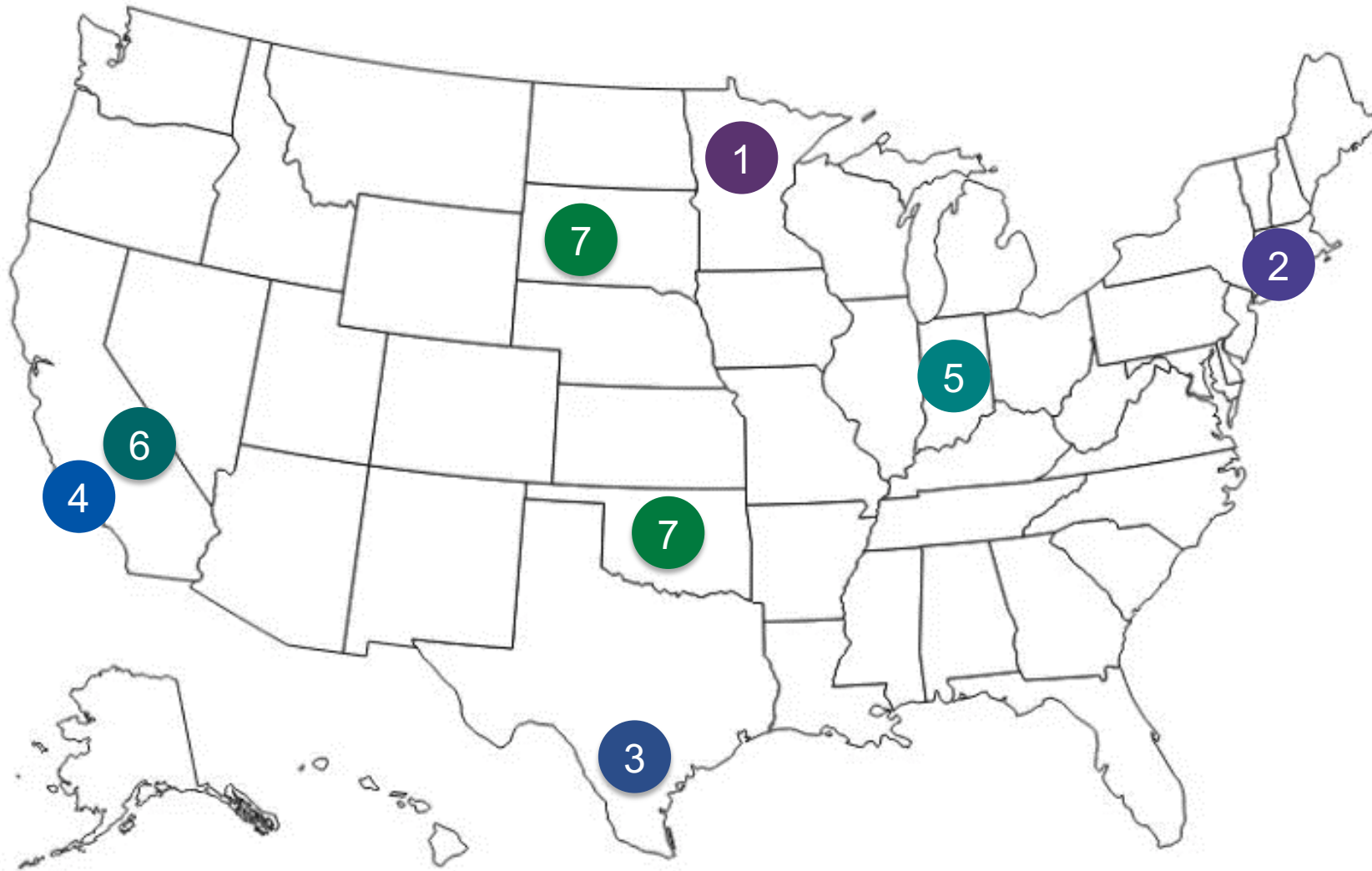
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Introductions



- 1 Cass Lake-Bena Public Schools & Region Five Development Commission (Minnesota)
- 2 Bridgeport Public Schools & University of Connecticut (Connecticut)
- 3 Katy ISD & Green Star Engineering (Texas)
- 4 Los Angeles USD + LA DWP (California)
- 5 Matchbook Learning Centers & Ameresco (Indiana)
- 6 Porterville USD & Climate Action Pathways for Schools (CAPS) (California)
- 7 Warner (OK) + White River (SD) + Willdan

Overview of DOE's Programs for Schools



Funding and capacity building

<https://www.energy.gov/scep/renew-americas-schools>

Provides funding and technical assistance to help K-12 schools across the country implement energy-efficient upgrades and improvements to reduce energy consumption



Building-focused

<https://efficienthealthyschools.lbl.gov/>

Provides resources and guidance to implement building improvements to improve indoor air quality, energy-efficiency, and enhance student performance

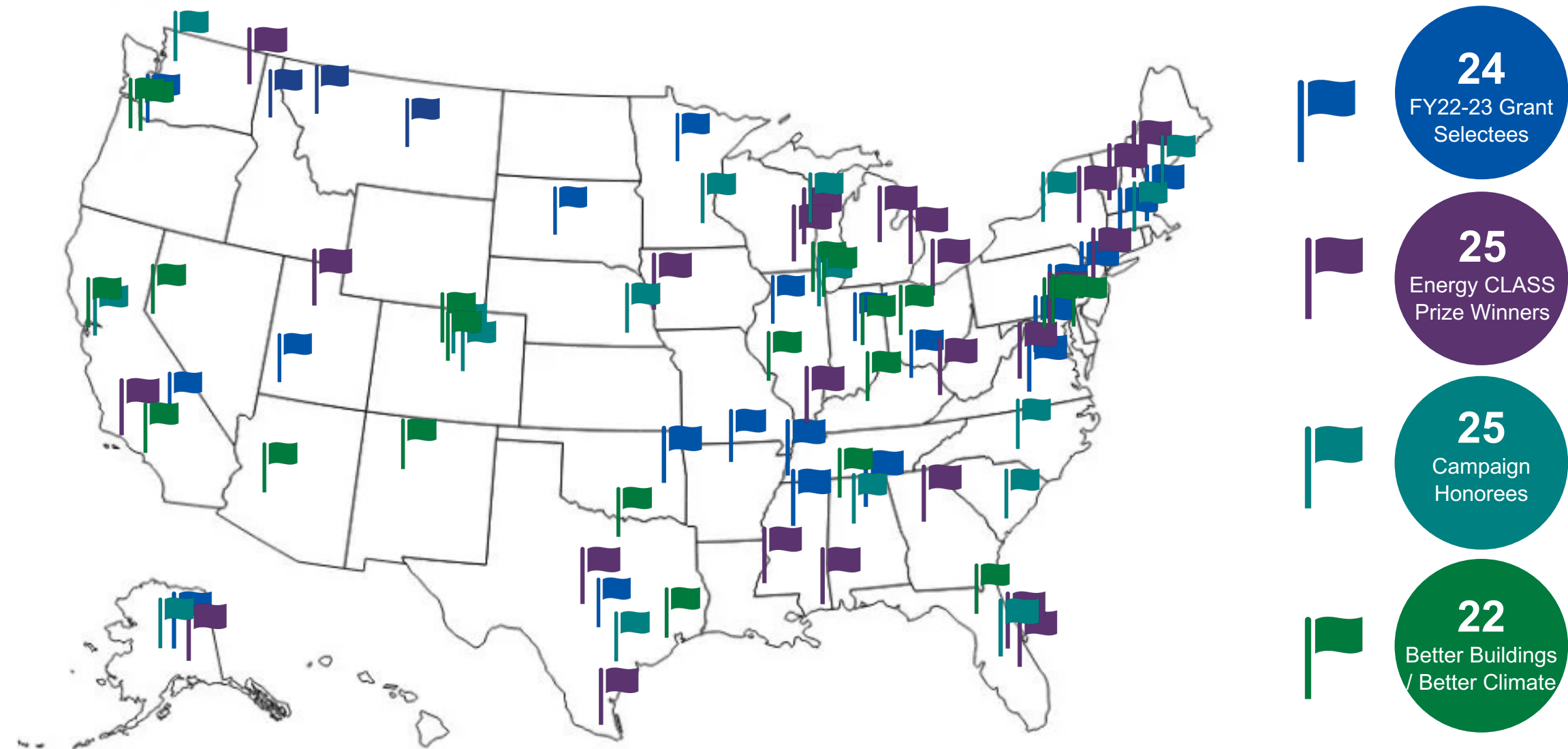


Portfolio-centric

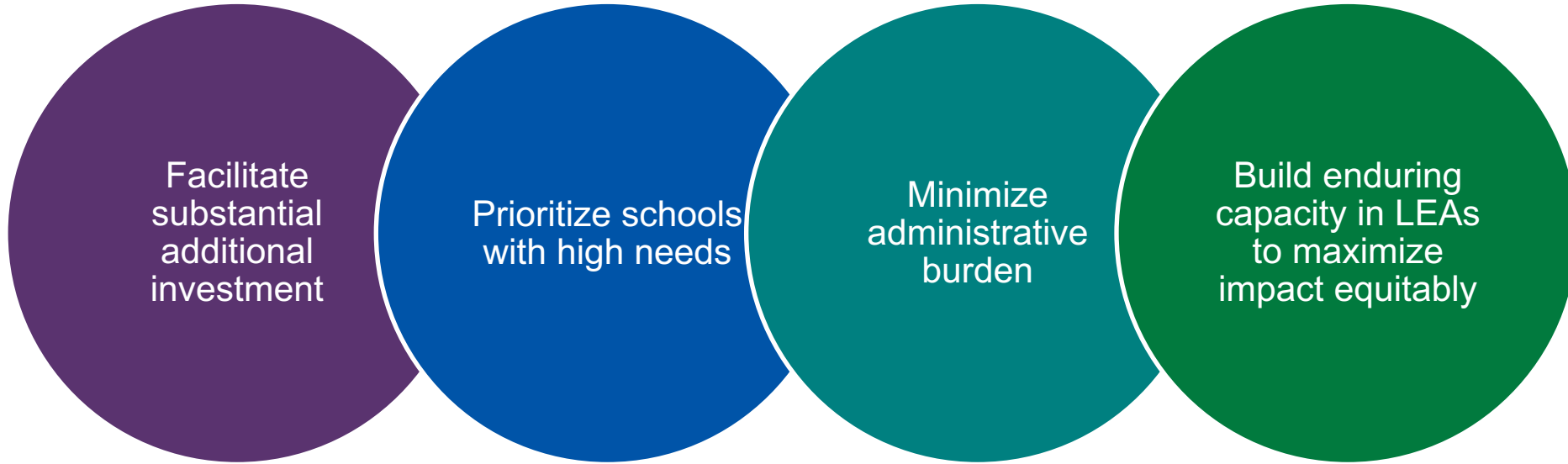
<https://betterbuildingssolutioncenter.energy.gov/>

Provides resources and guidance to reduce energy waste and greenhouse gas emissions for a portfolio of buildings and fleet

Overview of DOE's Programs for Schools



Renew America's Schools Program



Renew America's Schools (BIL Provision 40541)

New competitive grant program for energy improvements at public school facilities

Funding

\$500M (\$100M over five years, FY22-FY26), until expended, through competitive grants.



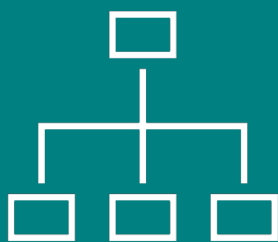
Qualifying Energy Improvements

Improvements, repairs, or renovations that reduce energy costs or lead to improved teacher and student health and achieve energy savings.



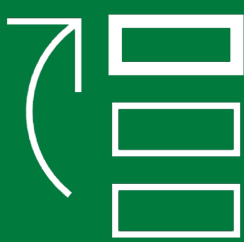
Eligible Entities

Consortia of 1 local educational agency (LEA) and one or more schools, non-profits, for-profits, or community partners.



Prioritization

Schools with improvement funding needs, with high free and reduced-price lunch percentages, schools located in a rural locale, and/or schools that leverage private sector funding through performance contracting.



DOE
announced
\$178M



SCEP
STATE & COMMUNITY ENERGY PROGRAMS

Renew America's Schools Grant

**2022-2023
Selectees**

74,000 Students, **5,000** Teachers,
& **97** School Buildings are
represented across the 24 winners.



North Wasco
County School
District 21

St. Maries School
District #41

Winnett Public
School District #1

Charlo School
District

Cass Lake-Bena
Public Schools
(in partnership with Region
Five Development Commission)

Matchbook
Learning Centers

Baltimore County
Public Schools

Natick Public
Schools

Bridgeport
Public Schools
(in partnership with
University of Connecticut)

William Penn
School District

Alexandria City
Public Schools

Nottoway County
Public Schools

Greenup County
School District

Williamsfield Schools
(CUSD #210)
and 19 LEAs

White River School
District 47-1

Warner Public
Schools Oklahoma

Clinton School
District

Memphis-Shelby
County Schools

Jefferson County
School District

Choctaw County
School District

Austin Independent
School District

Fairbanks North Star
Borough School District

Porterville Unified
School District

Kane County
School District

Renew America's Schools Program – 24 Selectees



15 Selectees have schools located in a **DAC**, including **5** in **Tribal areas**



The Selectees have a combined **Free & Reduced-Price** Lunch average of **70%**

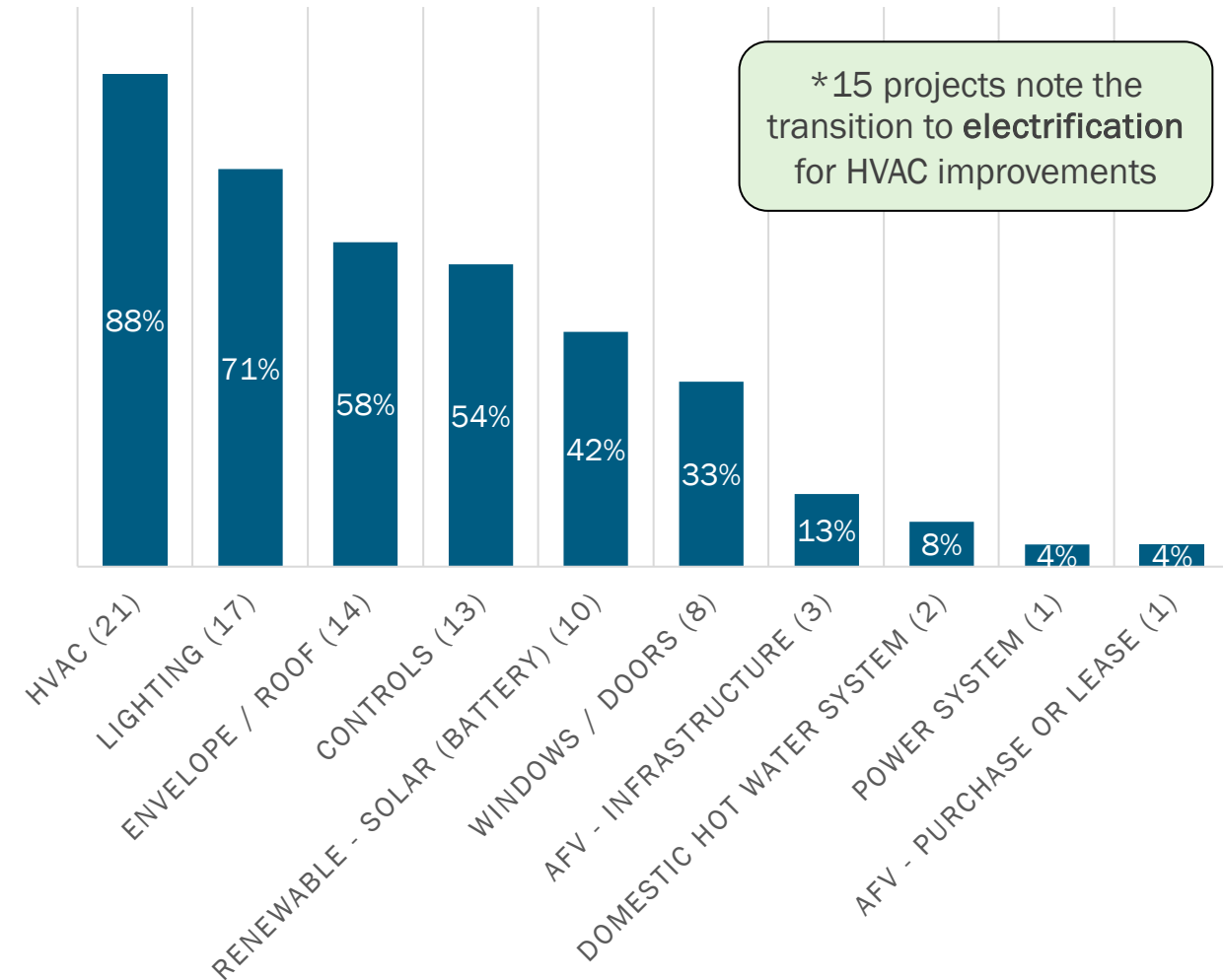


14 Selectees are in a **Rural Locale**



23 Selectees are **Title 1** schools

REQUESTED IMPROVEMENTS



Technical Assistance to Recognition Cycle



The Program ...

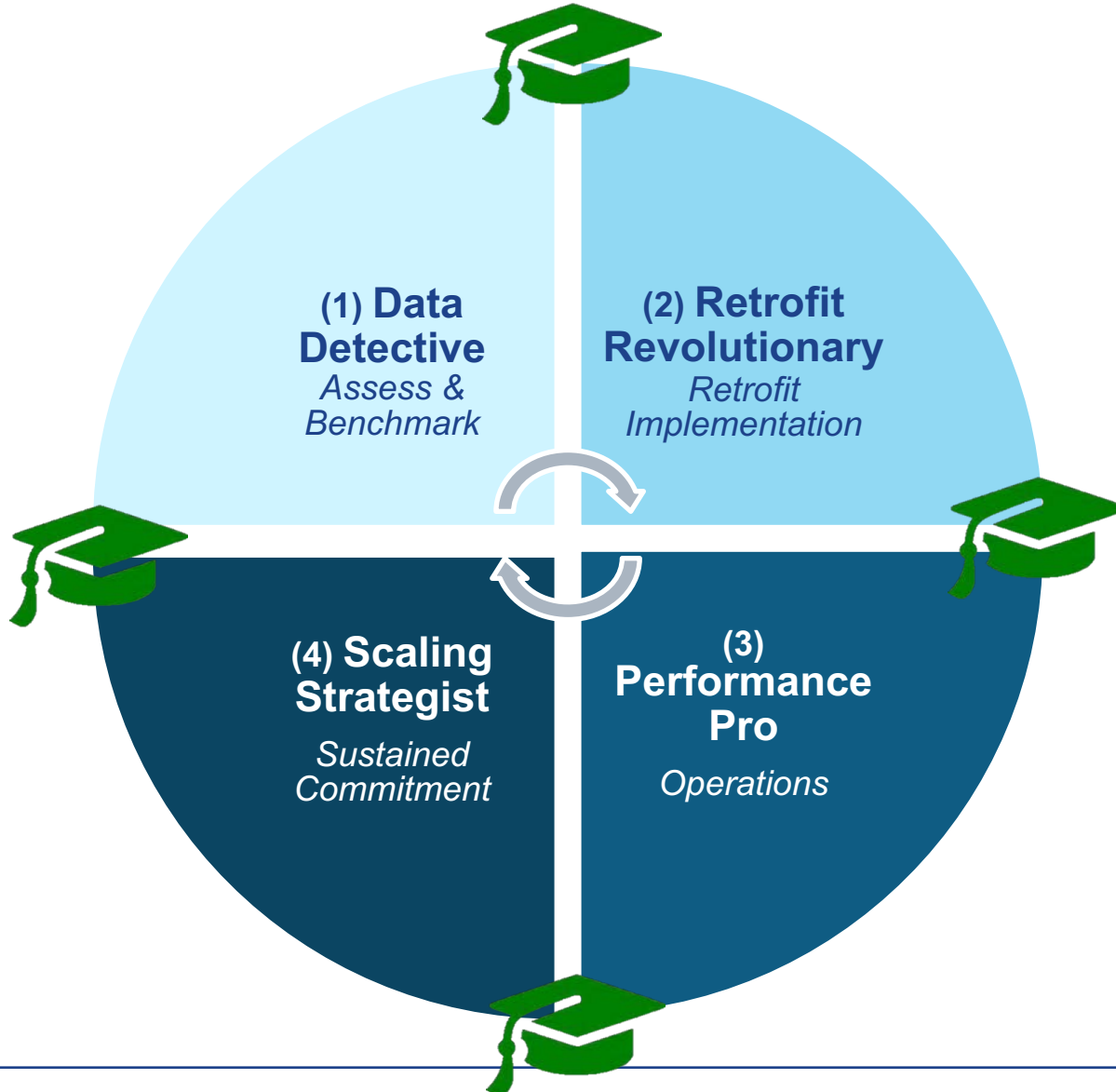
aims to improve energy performance and promote a **healthy learning environment** in schools.

engages **K-12** schools, especially those serving low-income student populations and in rural areas.

provides **technical assistance** through direct consultations and **recognition** of exemplary school improvements.



Technical Assistance to Recognition Cycle



All Phases Offer

- Tangible TA menu administered all year long by LBNL & NBI
- Peer-learning in cohorts of districts facilitated by NBI
- Mentorship from willing phase or cycle graduates
- Financing & funding development
- Packaged resource sharing by NBI



• [Join | Healthy Schools \(lbi.gov\)](http://lbi.gov)

What is Technical Assistance?

Personalized and tailored support and resources from subject matter experts in multiple categories, relevant to either implementation or planning efforts within schools or districts.

Technical Assistance: Categories



General Program Support

- Onboarding
- Identifying first steps & next steps
- Recognition submission assistance



Energy Management

- Benchmarking
- Building assessments
- Energy analytics
- Retrocommissioning



Goal Setting and Planning

- Develop district roadmap
- Facility planning & prioritization
- Documentation development: SOW, RFP, OPR



Technologies and Systems

- EEM identifications: HVAC, lighting, water, kitchens
- Energy Management Information Systems (EMIS) & Controls
- Commissioning
- Performance verification



Indoor Air Quality

- IAQ assessments and planning
- IAQ monitoring



Decarbonization

- Electrification approaches
- Emissions reduction calculations



Solar and Renewables

- Solar potential
- Program and funding opportunities



Resilience

- Technical Resilience Navigator
- Approaches to manage emerging risks e.g. extreme heat, wildfire smoke



Funding

- Identify federal, state, local and utility funding available
- Value proposition for funding pitch
- Performance based contracting

Technical Assistance: Process



Technical Assistance: Methods



1-1 Coaching

- Document review to provide independent assessment of project plans, or suggestion to improve planning documents such as energy goals, retrofit plans, IAQ improvement plans
- Talk through strategies to improve energy efficiency, health, and resilience



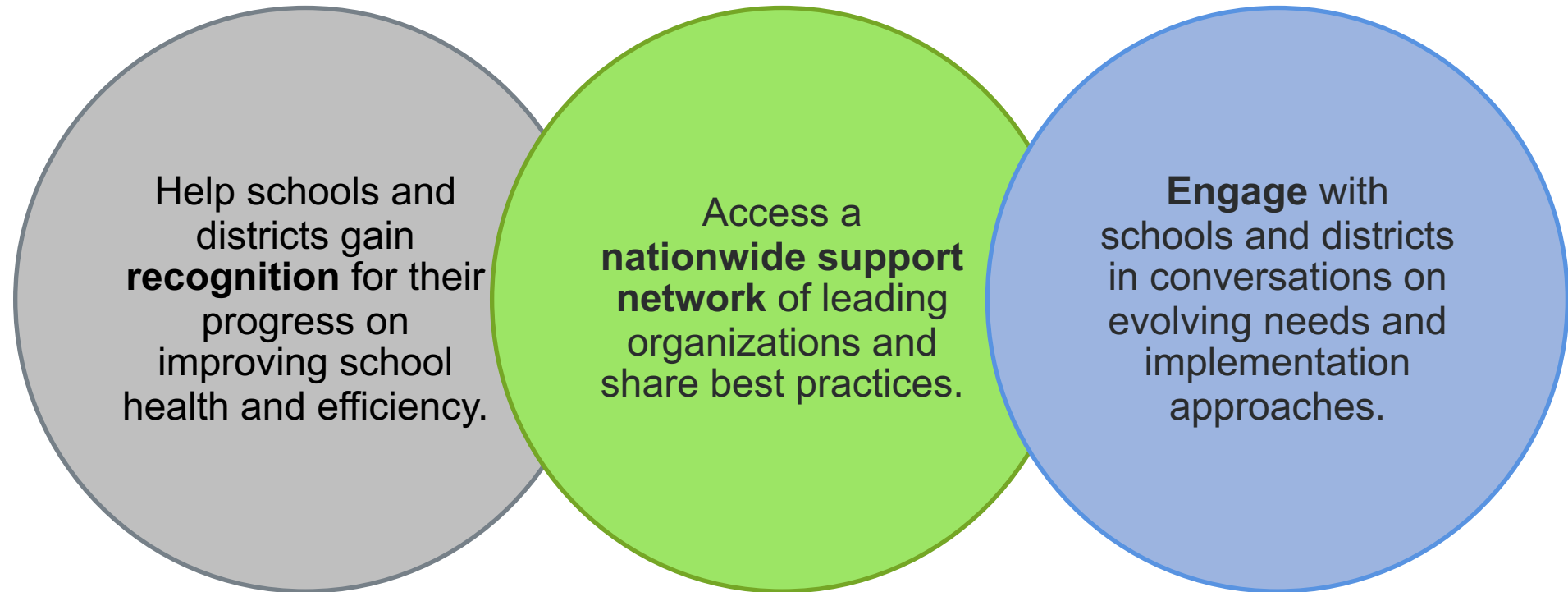
Resource Connections

- Connect schools with partnering agencies - EPA (IAQ, ENERGY STAR® Portfolio Manager®), ED (Green Ribbon Schools)
- Point schools to funding - fed (ESSER, DOE grant), state, local, utility incentives, ESCO, etc.
- Connect schools with subject matter experts
- Provide a list of relevant technical resources (e.g., tools & guides, webinars)

Scaling Impact: Role for Program Supporters

Join the Efficient and Healthy Schools Program as a Supporter!

Join now at: <https://efficienthealthyschools.lbl.gov/form/join>



Want more info? Email schools@lbl.gov

Join the Efficient and Healthy Schools Program

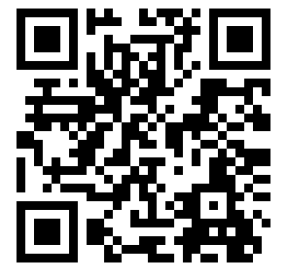


Join | Healthy Schools (lbl.gov)

Subscribe to the Efficient and Healthy Schools Program Mailing List

Resources | Healthy Schools (lbl.gov)

For more information email Sydney Applegate at Sydney.Applegate@ee.doe.gov



Better Buildings Initiative Partnership Pathways



- **Reduce energy intensity use by least 20% within 10-years**
 - Conduct an energy efficiency assessment of building portfolio and complete at least one showcase project and one implementation model. Report data annually to track progress
 - Report results by sharing cost-effective approaches for saving energy and performance data that demonstrate their success
-
- **Reduce GHG emissions (scope 1&2) by at least 50% within 10-years and set an energy efficiency target**
 - Develop emission reduction plan with milestone & report data annually to track progress using standardized framework
 - Share information on strategies implemented and participate in at least one working group to discuss barriers, exchange best practices, and identify solutions

Technical Assistance

Better Buildings Challenge

Resource Sharing

Direct you to resources, case studies, and guidance documents to help answer your questions.

Examples of resources to request:
Case studies, emission reduction measures technical guidance, relevant funding and financing options



Better Climate Challenge

Review & Provide Feedback

Review documents and provide suggestions and perspectives to help guide decision making.

Examples of documents we can review:
Decarbonization plans, energy/decarb audit results, request for proposals, decarb measure specification language



Brainstorm & Identify Solutions

Brainstorm solutions to problems you are encountering and offer advice on next steps.

Examples of topics to discuss: Options for electrification of heating systems, development of a portfolio-level plan for meeting emission reduction targets



Resources and Tools on the Better Buildings Platform



Recognition



SHOWCASE PROJECT: RIVER TRAILS MIDDLE SCHOOL

SOLUTION OVERVIEW

River Trails Middle School, located in Mt. Prospect, Illinois, faced inconsistent comfort levels and constant work maintenance orders. With outdated controls, building occupants and maintenance personnel did not have as much control over the HVAC systems as they would have liked. The district implemented an upgrade of the HVAC controls and retro-commissioned the building systems. At its conclusion, the project resulted in a 27 percent annual energy savings and an \$18,900 annual cost savings.

River Trails School District includes three school buildings, serving 1,500 students from Pre-K to 8th grade. The project at the middle school was implemented simultaneously at the two elementary schools to maximize efficiency and savings. The district portfolio also includes an administrative center and warehouse, although these facilities were not included in this project.

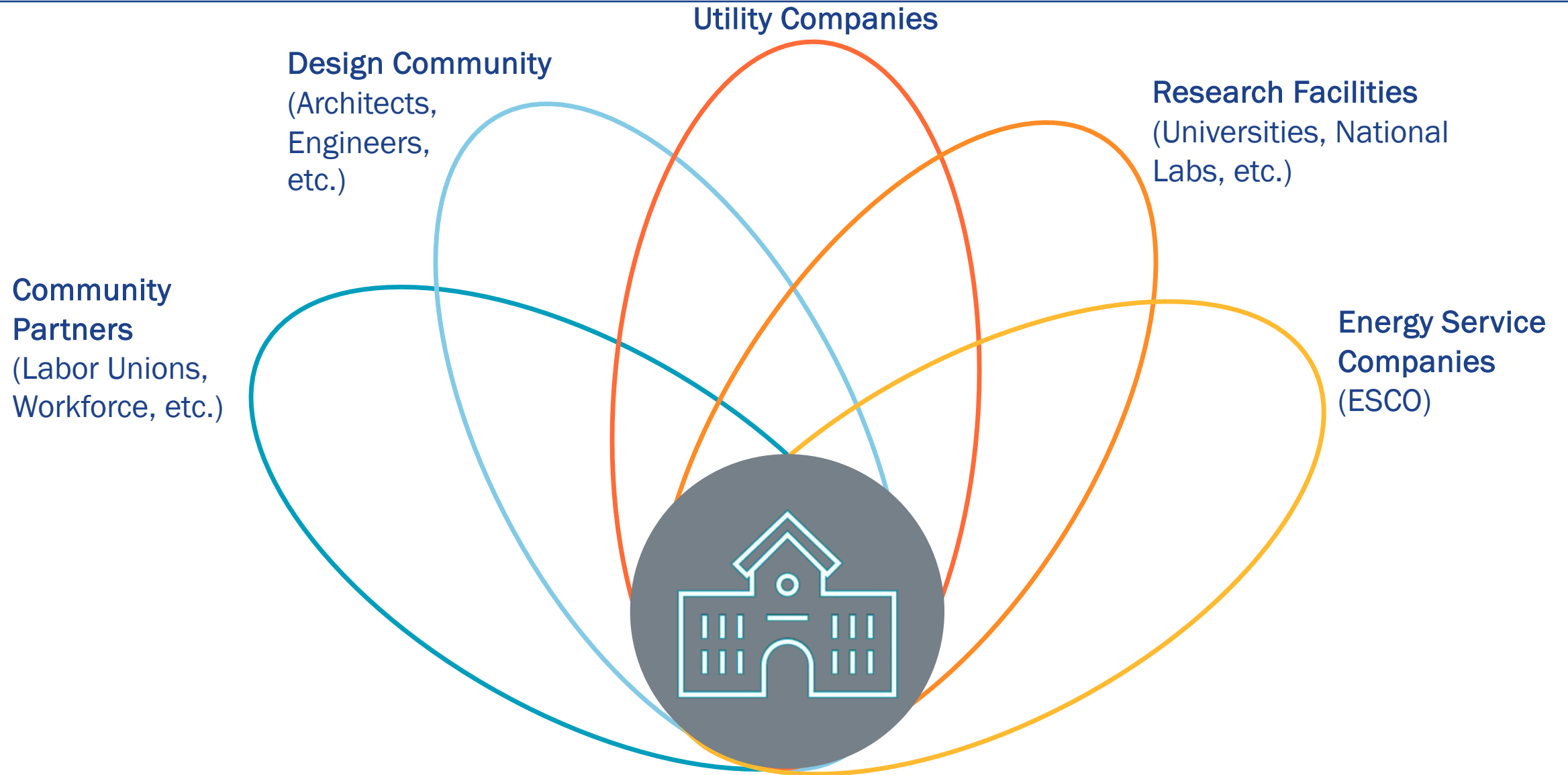
SECTOR TYPE

Education

LOCATION

Mt. Prospect, Illinois

The Power of Partnerships



The Power of Partnerships

Energy Service Company (ESCO)

ESCOs can identify opportunities for energy conservation measures, estimated savings, and implementation costs. ESCOs can also provide financing options through Energy Savings Performance Contracts (ESPCs).

University Partner

University partners can be a great asset to K-12 schools by assisting with energy benchmarking, facilitating the development of new partnerships for energy audits and proposal development.

Community-Based Organization

Partnering with local community organizations can provide critical support in areas like project management, financial administration, workforce development, and more.

Utility Partner

Utility partners bring experience in managing local energy service projects and can provide net-zero financing options through Energy Performance Contracts with low or no upfront costs to LEAs.

Cass Lake-Bena Public Schools & Region Five Development Commission

(Cass Lake, Minnesota)

Renew America's Schools Selectee

Cass Lake-Bena Schools (CLBS) + Region Five Development Commission (R5DC)

Our partnership goals:

1. Reduce energy consumption
2. Save the District money
3. Create jobs, build workforce in the clean energy economy
4. Build regional capacity to respond to and benefit from federal grant opportunities

How did this partnership form?

Built on existing partnerships including:

- City of Cass Lake Energy & Environment Planning
- Local educational cooperative purchasing organization (Sourcewell)



Partnership Strengths

Our Strengths

- R5DC is experienced in pursuing federal resources for the region, and working with federal partners
- CLBS is experienced in developing career pathways.

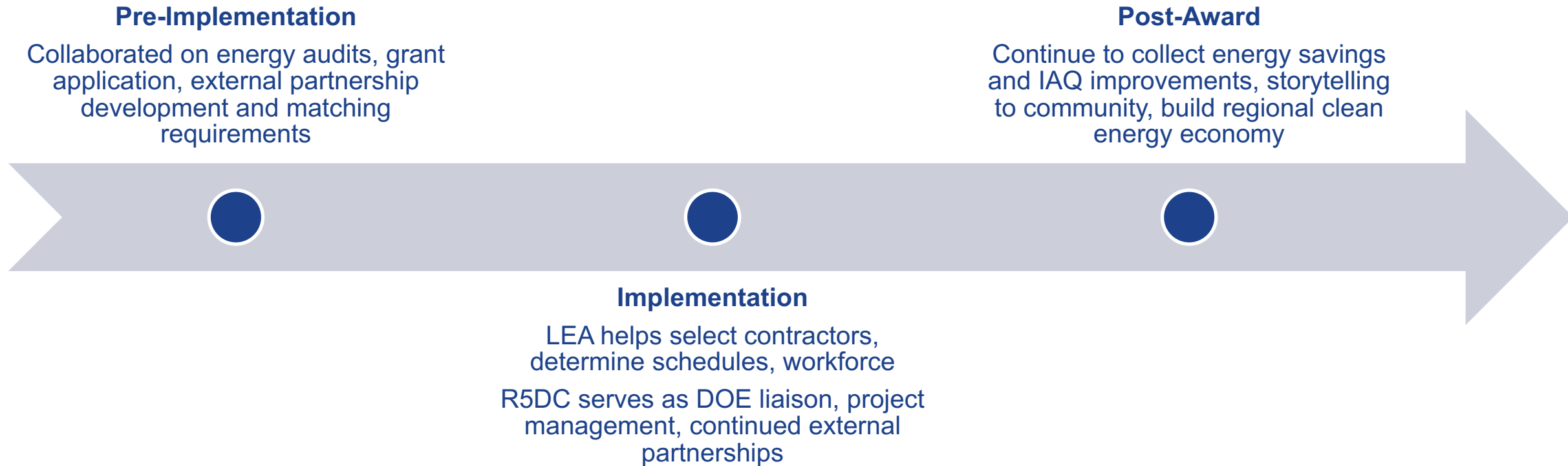


Overcoming Barriers

This partnership makes it possible to deliver meaningful federal resources to our rural region.



Collaboration Through Different Phases



Note: Some of this may be anticipated collaboration.

Recommendations

Recommendations for School Districts

Have a long-term facilities plan in place so that you have established priorities.

Be willing to think creatively.

Dream big!



Recommendations for prospective partners

- Start building relationships now.
- Conduct energy audits.
- Understand gaps and work to fill them.
- Collaborate to deliver resources, including researching, writing, implementing, reporting.



Bridgeport Public Schools & University of Connecticut

(Bridgeport, Connecticut)

Renew America's Schools Selectee

Bridgeport Public Schools + University of Connecticut

Our partnership goals:

Bridgeport is burdened with some antiquated school facilities that have not been upgraded and maintained due to lack of funding and expertise.

- Significantly lower energy usage and cost
- Improve indoor air quality for students and the community
- Demonstrate advanced controls and automation for a “Smart” School

How did this partnership form?

The partnership between Bridgeport Public Schools, utility-administered energy efficiency programs, and UConn faculty members first started in 2012 through an innovative municipal and K-12 school building energy benchmarking project.



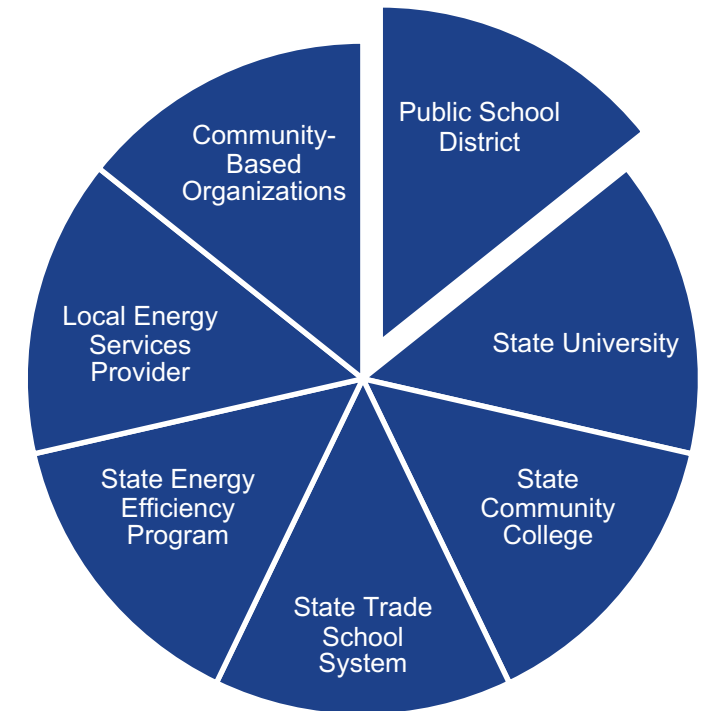
Partnership Strengths

Our Strengths

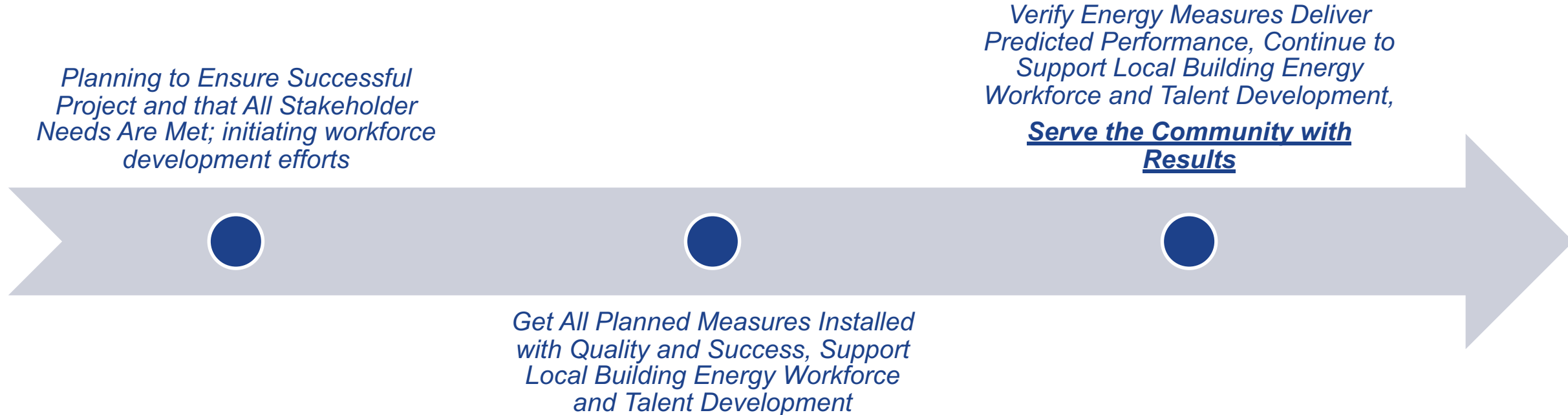
This partnership demonstrates a unique partnership combination of a public school district, a state public university, a state community college, a state trade school system, a state energy efficiency program, community-based organizations, and an energy services provider, all set to serve K-12 Schools.

Overcoming Barriers

The project, with its complete partnership model, will demonstrate how collaboration across all energy efficiency partners within a state can achieve best practices and outcomes for K-12 schools.



Collaboration Through Different Phases



Note: Some of this may be anticipated collaboration.

Recommendations

Recommendations for School Districts

- Work with your state energy efficiency programs and local utilities for support.
- Reach out to local higher education institutions for technical support and help in building partnerships.



Recommendations for prospective partners

- Put school needs and community needs first
- Bring in diverse partners to obtain best results



Katy ISD & Green Star Engineering

(Katy, Texas)

Efficient and Healthy Schools Honoree

Challenges:

- Growing district
- Outdated controls
- Rising utility costs

Our partnership goals:

- Update control systems
- Improve Maintainability & Operability
- Improve Efficiency

How did this partnership form?

- RFQ for retro-commissioning services
- Shared Vision: Standardize sequences and graphics to address maintenance, operation and energy cost issues



Partnership Strengths

Partnership Strengths

- Open and honest communication
- Earned trust and mutual respect
- Management & Board support
- Cooperation between stake-holders



Overcoming Barriers

- Leverage strengths
- Build confidence through training
- Quantify results – M&V
- Demonstrated value – case for continuation



Collaboration Through Different Phases

Planning

Document the vision through policies and specifications

Update specifications from lessons learned

Listen and truly understand the customer needs

Continuous Improvement

Measurement & Verification

On-going training / operations improvement

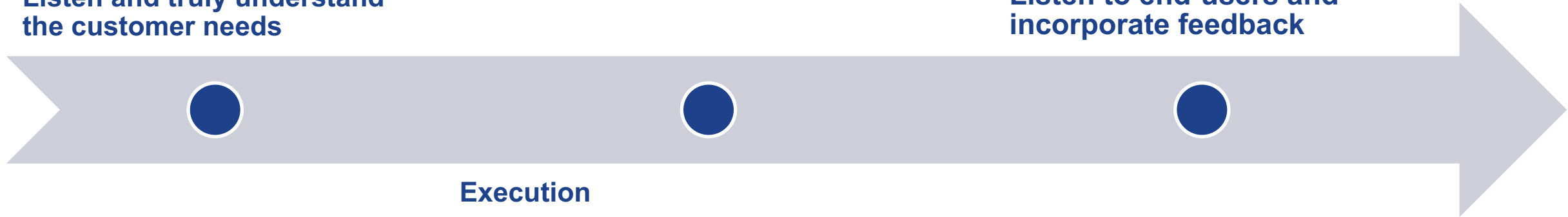
Listen to end-users and incorporate feedback

Execution

Commissioning & Testing – Ensure the vision is carried out

Identify challenges and hurdles to effective execution & communication

Ensure project goals are met and identify process improvement needs



Recommendations

Recommendations for School Districts

- Have a clear vision
- Administrative buy-in
- End-user buy-in
- Energy management / M&O teamwork
- Be prepared to justify and budget for improvements
- Partner trust
- Effective, timely, honest communication



Recommendations for prospective partners

- Share the client's vision
- Listen – administration needs
- Listen - end-user feedback
- Team approach
- Be prepared to demonstrate the value of the services
- Team trust
- Effective, timely, honest communication



Los Angeles USD + LA DWP

(Los Angeles, California)

Better Buildings/Better Climate Challenge Participant

Los Angeles Unified School District (LAUSD) + Los Angeles Department of Water and Power (LADWP)

Our partnership goals:

1. 100% clean, renewable energy in its electricity sector by **2030**
2. Electrifying all energy sectors, including heating, ventilation, air conditioning (HVAC), cooking, and transportation by **2040**



How did this partnership form?

- LAUSD is the largest LADWP customer and landowner with the City of LA.
- LAUSD and LADWP aligned their mutual goals for reducing energy consumption and water conservation, transitioning to all electric, and reducing reliance on fossil fuels.
- A strong partnership was developed through mutual interest, a collaborative approach, and by fostering a strong communication



Partnership Strengths

Our Strengths

- LADWP is responsive to needs by providing financial support through mutually agreed upon programs.
- LADWP to contribute \$72.5M over five years to LAUSD initiatives



Collaboration Through Different Phases

Pre-implementation:

Approach with needs that partner is suitable to address and which will also help them reach their own goals.

Draft MOUs that both parties can agree on, and feel are executable/achievable.

Plan a roadmap for success and establish communication expectations so all parties are on the same page.

Post-implementation:

Unified messaging to highlight achievements and celebrate the win.

Debrief with all parties to discuss areas for improvement and lessons learned.

Fold in changes to future partner program offerings.

Implementation:

Meet weekly or monthly to review progress, troubleshoot solutions, and pivot if necessary. Data sharing and open lines of communication are key.

Develop co-branded messaging to foster trust between groups and to show a publicly united front.

Note: The LAUSD – LADWP Partnership has been in place since 2013 so this cycle has repeated many times.

Recommendations

Recommendations for School Districts

Create a working relationship with your Utility Agency, understand their direction, and how your efforts may align.

Focus on fostering win-win opportunities to further the efforts of both organizations.



Recommendations for prospective partners

Communication and trust are key

Build relationships by understanding both sides and sharing common goals

Establish a process to resolve issues as they arise.

Participate in events and demonstrate support



Matchbook Learning Centers & Ameresco

(Indianapolis, Indiana)

Renew America's Schools Selectee

Matchbook Learning (MBL) + Ameresco

Our partnership goals:

1. Transform two distressed buildings into energy-efficient educational facilities.
2. Meet the need for Career Technical Education and apprenticeship training (high school and adults) in Indianapolis.
3. Develop a highly-skilled workforce for quality jobs in the trades, in a Justice40 community.



How did this partnership form?

- RFQ process.
- Interviewing the top three design-build construction management firms.
- The selection was based on firm expertise and mission alignment.



Partnership Strengths

Our Strengths

- Matchbook Learning (MBL) - Expert educators, strong operational & financial mgmt.
- Ameresco - Expert design-build firm with local roots; strong operational & financial mgmt.

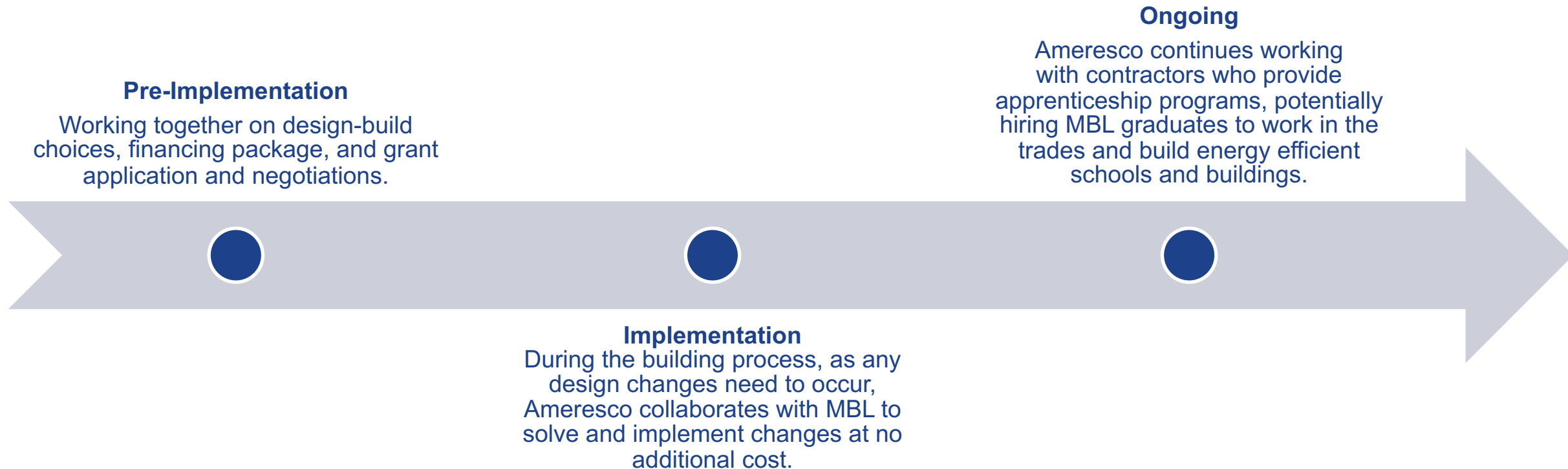


Overcoming Barriers

MBL and Ameresco are both invested in the local Indianapolis community. We have been able to collaborate on project goals such as creating an environment where future students can learn from building components (solar, HVAC), working with contractors who provide apprenticeship programs, and partnering with MBE/MOB/WOB/VOB for contractor support needs whenever possible.

Together, MBL and Ameresco can create access to the opportunities our students need.

Collaboration Through Different Phases



Note: Some of this may be anticipated collaboration.

Recommendations

Recommendations for School Districts

- Design and build with partners who are mission-aligned.
- Look for any potential grants to help fund your project.
- Choose a partner that has the capacity to manage grant applications and negotiations.



Recommendations for prospective partners

- Understand the full scope of the LEA's needs.
- Understand the financial strengths and capacity of the LEA.
- Partners should have a single point of contact for managing the project.
- Understand their mission and how it aligns with yours.



Porterville USD & Climate Action Pathways for Schools (CAPS)

(Porterville, California)

Renew America's Schools Selectee

Porterville Unified School District (PUSD) + Climate Action Pathways for Schools (CAPS)

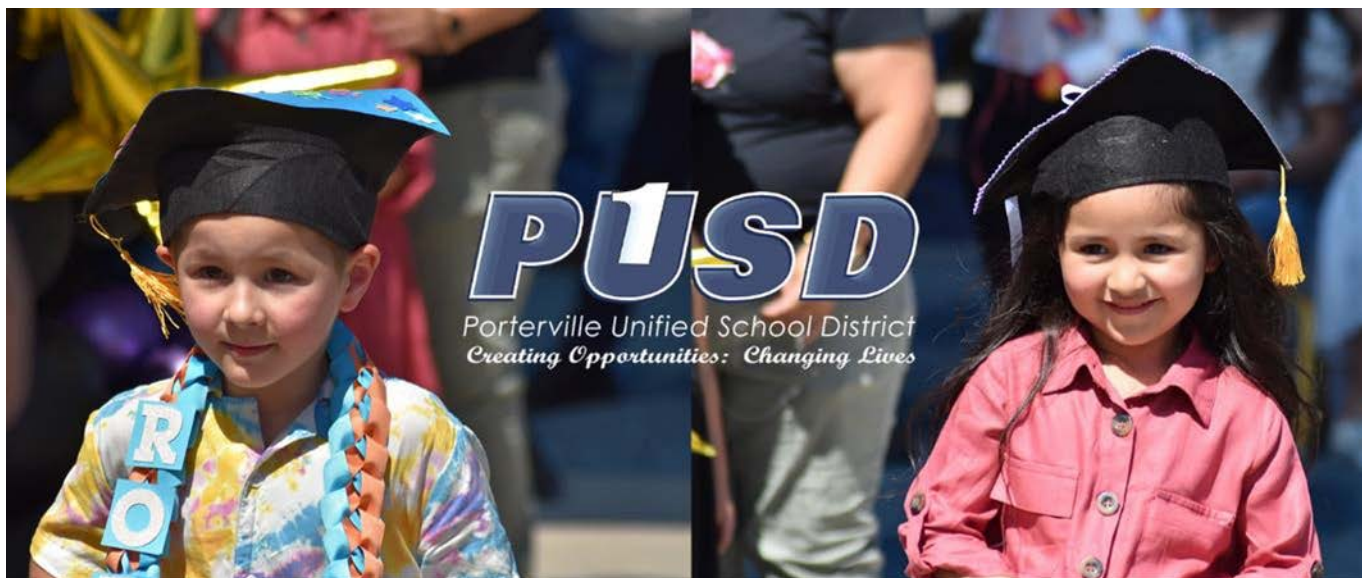
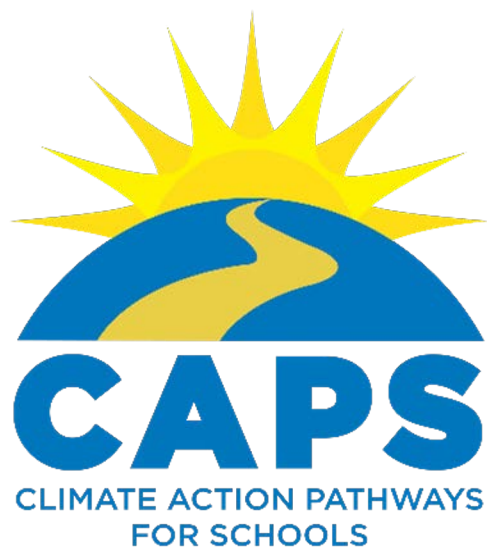
Our partnership goals:

1. Reduce energy costs
2. Lower GHG emissions by 80%, by 2030
3. Advance Education –
Prepare students for careers in sustainability

How did this partnership form?

Formed in 2019-20 and built on a successful early investment in clean energy.

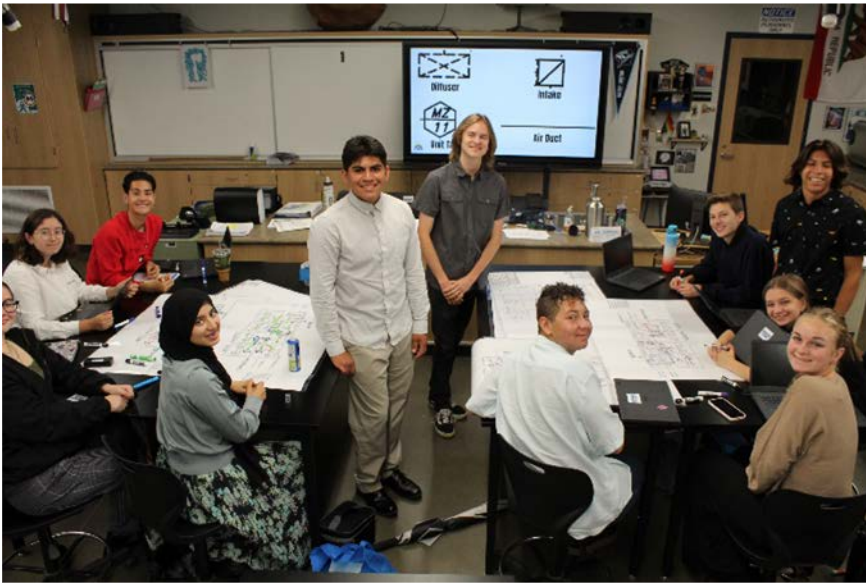
PUSD had foundational support from key leadership: Superintendent, Business Office, Facilities and Educational Pathways.



Partnership Strengths

Our Strengths

1. PUSD Pathways
2. Alignment on program goals
3. Inspiration through students' work



Students completing a mechanical take-off

Overcoming Barriers

1. Meet regularly: challenges & achievements
2. Thoughtfully communicate: empathy & appreciation
3. Work together on funding for needed infrastructure



CAPS & PUSD Students at High School Solar Array

Collaboration Through Different Phases

Integrate work-based-learning opportunities for Pathways Students at every phase





Students & CAPS Meeting with District Business Officer

Recommendations

Recommendations for School Districts

Secure Program Support & Ownership:

- Superintendent & Board
- Business & Operations
- Education Program (especially CTE)

Establish Program Goals that Motivate:

- Superintendent & Board
- Business & Operations
- Education Program (especially CTE)



Recommendations for prospective partners

Align Programs with high priority initiatives

To advance sustainability at LEAs, focus on co-benefits, for example:

- Advancing Education
- Reducing Utility Expenses
- Improving IEQ and IAQ



Warner Public Schools | White River School District & Willdan Energy Solutions

(Warner, Oklahoma & White River, South Dakota)

Renew America's Schools Selectee

Warner Public Schools & White River School District - Willdan Energy Services

Our partnership goals:

- Provide Students/Staff/Community Improved...
 - Safety/Reliability
 - Energy Efficiency
 - Quality of Life
- Achieve 30%-40% CO2 reduction and 50% energy usage index (EUI) district-wide through:
 - High Efficiency HVAC
 - Centralized Building Management System
 - LED Lighting
 - Building Envelope Improvements



How did this partnership form?

- Willdan (DOE Teaming Partner)
 - Knew Warner & White River had high needs and limited funds
 - DOE announced RASG
 - Contacted to ensure awareness & offer support
 - Responded to RFP
- Warner & White River
 - Knew they had significant facility deficiencies
 - No funding path available
 - Not aware of RASG
 - Welcomed support
 - Issued RFP/Selected Willdan



Partnership Strengths

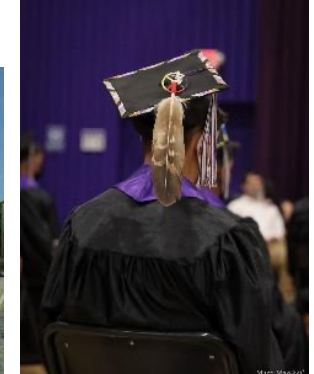
Our Strengths

- Unity of Intent
- Proactive vs. Reactive
- Stated Expectations
- Mutual Accountability



Overcoming Barriers

- ☐ Where to start?
 - ✓ Professional needs assessment
- ☐ What to do?
 - ✓ Identify, Quantify, Prioritize, Execute
- ☐ Who has time?
 - ✓ Experienced staff to lead/collaborate
- ☐ How to execute?
 - ✓ Subject matter expertise for full project life-cycle



Collaboration Through Different Phases

Assess Facility Needs
Create RASG Application
Complete RASG Award Process
Develop Scope/Budget
Engage Local Workforce
Design/Engineer
Finalize Scope/Budget

1

Development



2

Construction

Create Construction Management Plan
Mobilize Contractors
Engage Students
Complete Construction
Commission Systems
Train Staff
Celebrate With Community
Create/Submit DOE Reporting

3

Verification

Audit Results Quarterly
Solution and Modify (as needed)
Evaluate Local Economic Impact
Produce Project Results
Submit Final DOE Reporting



Recommendations

Recommendations for School Districts

- Trust but verify
- Take the risk, reap the rewards
- Invest in your sanity – Partner



Recommendations for prospective partners

- Go Old School - Show up
- Be Relational Not Transactional
- Be a “Horton”
“I meant what I said and I said what I meant...”
— Dr. Seuss, *Horton Hatches the Egg*



Resources and Announcements

Join the Teaming List

There is vast interest and opportunity for collaboration between school districts and industry experts willing to support them in meeting their energy goals. To facilitate such partnerships, and to help school stakeholders in the Renew America's Schools Program, the Efficient and Healthy Schools Program, the ESPC Campaign, and the Better Buildings/Better Climate Challenge connect and communicate, DOE is compiling a Teaming Partner List. [Join the Teaming Partner List](#) to let prospective partners know you are interested in working together. Please note that this is not an application for any DOE programs or campaigns.



Resources and Announcements

**COMING
SOON**

Sign-up for updates

Subscribe for more information about the Renew America's School Program.



The Renew America's Schools Program is working to provide opportunities for school districts across the country. In SY23-24, we anticipate . . .

- ❑ Winter 2024 – DOE Resources and Tools for Schools
- ❑ Spring 2024 – Anticipated release for second round of funding.

<https://www.energy.gov/scep/renew-americas-schools>
schools@doe.gov



Save the Date



Mark your calendars: the U.S. Department of Energy's [2024 Better Buildings, Better Plants Summit](https://betterbuildingsolutioncenter.energy.gov/summit) will be **April 2-4** in Washington, D.C. This event will feature engaging and interactive sessions, as well as opportunities for attendees to network with industry peers and national experts. Registration details are coming soon.

Resources and Announcement



The **Energy Savings Performance Contracting (ESPC) Campaign** engages states, local governments, K-12 school districts, public universities and hospitals, and other market stakeholders to support, expand and enhance ESPC, drive the adoption of best practices, and achieve significant energy, environmental and cost savings benefits

Goal: Partners will collectively achieve **\$1 billion** in measured and verified savings

Benefits

- ✓ Access U.S. Department of Energy technical assistance, peer exchange, and networking opportunities
- ✓ Strengthen ESPC knowledge and technical capacity
- ✓ Maximize the impact of projects and programs
- ✓ Demonstrate results with measured and verified savings
- ✓ Receive recognition for exemplary projects and programs and achieving savings goals

Partnership Pathways

Participants are public sector agencies and building owners ready to establish, strengthen and expand ESPC programs or implement ESPC projects to maximize impact and demonstrate measured and verified results

Supporters are market stakeholders ready to share expertise with participants and demonstrate support for ESPC and M&V best practices

How to Join

Sign up or learn more:

www.energy.gov/scep/espc-campaign

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Join



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Thank you!